Alternative Technologies

DAVID O. McGOVERAN
President

Education:

B.S. University of Chicago, 1976
majors: Mathematics, Physics; minor: Cognition & Communication

Graduate studies:
University of Chicago, 1976
Stanford University 1977-1978 Physics, Psycholinguistics

Professional memberships:

Association for Computing Machinery
Mathematics Association of America
American Mathematical Society
New York Academy of Sciences
Institute of Electrical and Electronics Engineers
Alternative Natural Philosophies Association

Representative publications:

"On the Declaration of Integration: The Declarative vs. Procedural," Middleware Spectra, Vol. 16, Report 2, May 2002 (also in Financial Middleware Spectra, Vol. 16, Report 2, May 2002)

"The Age of the XML Database?," The eAI Journal, Oct. 2001

Zero Management! Bringing Business Into the New Millennium, in preparation.

An Advanced Guide to Client/Server Applications, in preparation.

"Enterprise Integrity," The eAI Journal, monthly column, 1999 - present.

A Technical Reference Architecture for Enterprise Application Integration: Version 1, Alternative Technologies, March 15, 1999

"Decision Support," original Chap. 21 in Introduction to Database Systems: 7th Edition, by C. J. Date, c. 1999

EXHIBIT 6

The Web-enabled Extraprise, (white paper), Alternative Technologies, 1998.

A Guide to SYBASE and SQL Server, with Chris Date, Addison-Wesley, 1992

The DBMS Scalability Report, (Alternative Technologies, Boulder Creek, CA, 1997). First report in a planned series on the truth about VLDB and scalability.

"Up to a Point, Lord Copper," DBP&D Website (www.dbpd.com), May, 1997, with C. J. Date and Hugh Darwen.

"Nothing to Do with the Case," DBP&D, September, 1995 with C. J. Date and Hugh Darwen.

"Updating Joins and Other Views," with Chris Date, DBPD, August, 1994. Also in C. J. Date, Relational Database Writings 1991-1994, Addison-Wesley, 1995.

"A New Database Design Principle," with Chris Date, DBP&D, July, 1994. Also in C. J. Date, Relational Database Writings 1991-1994, Addison-Wesley, 1995.

"Updating Union, Intersection, and Difference Views," with Chris Date, DBP&D, June, 1994. Also in C. J. Date, Relational Database Writings 1991-1994, Addison-Wesley, 1995.

"Point Counter Point: Object versus Relational Databases," Platinum Edge: A Database Survival Guide, Vol. 1, pp. 6-8, with Mary Loomis.

"8 Essentials of Distributed RDBMS: Distributed Not Yet Delivered" ComputerWorld, June 6, 1994, pp. 112, 114.

"The Relational Model Turns 25" DBMS, October, 1994. Also in C. J. Date, Relational Database Writings 1994-1997, Addison-Wesley, 1998.

"Nothing from Nothing," DBP&D, in four parts, Dec.1993-Mar. 1994. (how to handle and not handle missing information in relational databases) Also in C. J. Date, Relational Database Writings 1994-1997, Addison-Wesley, 1998.

Database Product Evaluation Report Series, a series of evaluations of all the major relational DBMSs and selected front-end tools (Alternative Technologies, Boulder Creek, CA, 1989-1994).

"A New View of the Client/Server Market," Editorial Supplement, DBMS, December, 1993, with Victor Lewis.

"Useless Benchmarks: Just Say No!" DBMS, October, 1993.

An Evaluation of Database Server Architectures, white paper, Alternative Technologies, September, 1993.

"API Madness," DBWorld Conference Proceedings, Boston, June, 1993.

"A Distributed DBMS Lesson," in Preparing for Distributed Databases and Applications, May, 1993, pp. S3-S7 (Supplement to Network World).

"Client/Server Performance," DBExpo Proceedings, San Francisco, May, 1993.

"Distributing Data: Two Phase Commit vs. Replication," DBP&D, May, 1993.

"When Cursors Just Won't Do", Sybase Users Week, June, 1992.

"Relational Concepts and Practices", Borland Database Conference, June, 1992.

"The Evolution of the Client/Server Species", LAN Technology, June, 1992.

"Opening the Windows", DBP&D, Vol. 5, No. 6 (June, 1992).

"On-Line Complex Processing," DBMS, November, 1992.

"Analysis and Modeling of Large Databases", Power Thinking Tools, Northampton, MA (March, 1992).

"Warning Signs: Recognizing Complex Requirements", ORACLE Magazine, Vol. 6, No. 2 (Spring, 1992).

"Looking Beneath the Surface, Data Based Advisor, Vol. 10, No. 3 (Mar. 1992).

"ORACLE Server: Tuning Tips", Data Based Advisor, Vol. 10, No. 3 (Mar. 1992).

"The Evaluation of Optimizers", Ency. Comp. Sci. and Tech., Marcel Dekker, 1991, New York.

"Clarifying Client-Server", DBMS, Vol. 3, No. 12, Nov. 1990.

"Using Oracle's Call Interface Effectively", Oracle Magazine, Spring, 1990.

"An Evaluation of Five Optimizers", InfoDB, Vol. 5, No. 2, Summer, 1990.

"On-Line Complex Processing: Beyond OLTP", InfoDB, Vol. 5, No. 1, Spring, 1990. Also in The OLTP Handbook, Wiley & Sons, 1993.

"Evaluating Optimizers", DBP&D, Jan., 1990.

"Flexible Relational Database Applications", InfoDB, Vol. 4, No. 2, Summer, 1989.

"The Power of Stored Procedures", DBP&D, Sept., 1989.

"Secrets of Relational Performance Tuning", DBP&D, July, 1989.

"Backend Database Machines Improve CIM Systems", Computer Consulting, Vol. 1, No. 4, 1985.

"Fuzzy Logic and Non-distributive Truth Valuations" in Fuzzy Sets, 1980.

"A Curiosity In the Proof of Godel's Theorem", Comm. of the ACM, submitted.

Bit-String Physics: A Finite and Discrete Approach to Natural Philosophy, Series on Knots and Everything, Vol. 27, with H. Pierre Noyes, et al., ISBN 9810246110, © 2001, World Scientific Publishing Co. Inc., New York, London, and Singapore

Author of over twenty academic articles (discrete math., physics) and one electronics engineering textbook. Note: DBP&D is an acronym for Database Programming and Design.

Representative professional activities (Alternative Technologies, 1976-present):

Consultant for numerous firms with respect to business management, organization, and product marketing, including identifying business value, market opportunity, competitive analysis, and core competencies. CTO Pro Tem for two startups.

Consultant for numerous firms with respect to strategic technical planning, product design (vendors) or use (consumers), and service provision. Performed numerous detailed technical audits of products, projects, and software engineering practices.

Developed management theory and supporting technology framework for business agility in the face of rapid change (Zero Management).

Extensive work in EAI/data integration, B2B, and Web ("dot com"), including MOM and DBMS for both vendors and users. Developed / chaired first independent conference on EAI (enterprise application integration). Published EAI Reference Architecture. Founded / chaired industry council on enterprise integration (EIC).

Consulted for multiple companies on the market, technology, and use of Business Process Management. Developed BPM Systems reference and functional architecture and Product Evaluation Scheme. Recognized among many as a pioneer in the field.

Provided expert testimony (relational databases, client/server applications and architectures, software practices and standards) and litigation support in court cases, arbitrations, and negotiations (trade secret misappropriation, patent infringement, consulting breach of contract, neglect, fraud, and product liability) with vendors and consumers as litigants. Worked with both complainants and defendants. Positive outcome on all cases to date.

Developed Database Connectivity Benchmark (DCB).

Coordinated joint effort of Microsoft and Apple with ODBC and DAL, the first new public effort between the two companies in over five years. This brought Bill Gates and John Scully together for their first joint announcement.

Recognized independent industry analyst in database, client/server, data warehouse, EAI, and BPM markets from 1985 to present.

Performed product acquisition and investment analysis for various software companies (e.g., HP, IBM, and DEC).

Performed marketing/technical due-diligence for venture capital firms (database, Internet, e-business, & other startups).

Taught numerous courses/seminars on database design, relational applications design, client/server applications design and development, parallel database servers, database product evaluation, replication, and specific products. Frequent presenter/ conference track chairman at DCI Client/Server, Data Warehouse, and others.

Wrote Rdb/VMS analysis for DEC's system engineers training.

Conducted various database benchmarks including TPC Benchmark of DEC's Rdb/VMS V4.0 and of packaged application software such as PeopleSoft.

Consultant to all of the key RDBMS vendors and many tools vendors on products and strategies. Special projects included porting RDBMS products for Sybase and evaluating pre-release database products (DBMS, replication, admin tools, query tools, etc.) for Oracle, IBM, Microsoft, Sybase, Teradata, Informix, and others.

Conducted in-depth technical and marketing product evaluations of numerous Web, application development, and RDBMS products. Provided guidance to numerous companies (e.g., Digital Market, Bluestone, HP, and IBM)

Designed and developed FASTTRACK, first commercial Computer Integrated factory automation system for the semiconductor industry; first system using heuristics, adaptive process control and routing, and an RDBMS in any manufacturing automation system. An early client/server system.

Developed requirements definition for on-line shop-floor system and engineering/ manufacturing database for discrete job shop environment.

Architect, developer, and consultant for several major Wall Street Financial firms (e.g., Citicorp, Drexel Burnham Lambert, Goldman Sachs, Lehman Brothers, Merrill Lynch) using an RDBMS. Consultant to numerous financial institutions.

Managed database consulting team for first ISDN provisioning telecommunications) database working with both 5E and DMS switches. Significant contributions to flexible software architecture.

Conducted database design, performance, and architecture audits for numerous telecommunications firms, especially decision support/data warehouse (e.g., Pacific Telesis, U.S.West, Ameritech, A.T.& T, MCI, Worldcom.).

Automated order entry, an on-line customer service/ technical support center, product configuration for a large corporation. Designed and developed network communications protocol conversion software for industrial applications.

Database designer/analyst for numerous large RDBMS projects.

Conducted design reviews and database audits for message switching, funds transfer, health maintenance, market research, and other applications.

Designed and developed integration of a decision support system with a backend database machine. Consulted for one of the first DSS companies (Metaphor) on DBMS usage and product design.

Designed and developed high performance RDBMS high level language interfaces, development tools, and optimization/performance tools.

Designed and co-developed the Relational Access Manager, a rapid development environment for flexible, complex RDBMS applications.

Developed AT2000: a software design/development methodology.

Designed and co-developed SENTAX: an on-line natural language grammatical checker/editor and general expert systems context-sensitive parsing technology.

Served as Professor and Chairman, Departments of Computer Sciences and Business Administration, Condie College; and Lecturer, PEI, Menlo College.

Experience and familiarity with most major operating systems, languages, database management systems, and integration tools (e.g. UNIX, VMS, MVS, VM/CMS, OS/2, DOS; C, C++, FORTRAN, COBOL, Java, HTML, Pascal, PL/1, BASIC, LISP, Prolog, XML; COM, CORBA; DB2, Oracle, CA-OpenIngres, Sybase, SQL Server, Rdb, NonStop SQL, Informix, SQLBase, Teradata, and others; BEA, Candle, D2K, IBM MQSeries / MQSI / MQWorkflow / Websphere B2B Integrator, HP ChangEngine / Process Manager, Microsoft MSMQ, SeeBeyond, Vitria, WebMethods, & others).

Experience with many tools (e.g. PowerBuilder, Visual Studio, ODBC/JDBC, Cognos, Focus, Brio, Business Objects, Sapphire/Web, Oracle, & others).

Honors:

Numerous scholarships, grants, and awards; listed: Who's Who (in California, in the West, in America, in the World, and in the Computing Industry); Personalities in America; Men of Achievement; invited Stanford University Visiting Scholar 1986-1992; Invited member, IBM Gold DB Consultants, IBM Gold TP Consultants (one of five worldwide invited to both); 5 U.S. Patents/Scientific Copyrights; invited international lecturer. Recipient: Second Annual Alternative Natural Philosopher Award, 1990. Descendant of at least 5 Revolutionary War soldiers.

Achievements:

Developed ordering operator calculus for concurrent processing, database, and physical modeling. Set industry objectives for flexible relational applications, stored procedures, on-line complex processing relational databases, and BPMS. Developed first algorithm for updating relational views and new database design techniques (handling missing information, semantic orthogonality and completeness, avoiding update anomalies, merging and versioning databases, compatible and consistent physical design). Developed and implemented bachelors degree program in computer science for a private college. Assoc. editor, InfoDB (1990-1994). Co-founder and former principal of DataBase Associates (Morgan Hill, CA). Co-chairman of The National Database Exposition (DB Expo), San Francisco, CA. from 1990-1993. Sr. Tech. Editor, The eAI Journal (1999-present). Chairman, IT Advisory Board for PREDICT, Inc. (2000); Member, Advisory Board for RevX, Inc. (2001-2002). Over 25 successful years of business management.

Previous Employment:

SRI International, Consultant/ Physics Associate, 1976-1979.

University of Chicago Hospitals and Clinics, Manager and Sr. Engineer, Medical (Clinical) Electronics, 1975-1976.

Enrico Fermi Institute, Laboratory for Astrophysics and Space Research (NASA), Analyst, 1973-1974

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